This great box was made water-tight and then auchored on the spot on which the tower was to stand. The caisson was protected from the river by a coffer-dam of piles and sheeting. The work of building the tower on piles and sheeting. The work of building the tower on the caisson was at once began and continued until the caisson was at once began and continued until the caisson was at once began and continued until the caisson was at once began and continued until the caisson. There were large wrought-from tubes or shafts bottom. There were large wrought-from tubes or shafts in the roof of the caisson to enter the caisson. Was an Li-lock for persons to enter the caisson. When it was annk on the river bottom the water was forced out of the enisson by compressed air, and men could go in and work. One pound of air pressure equals two freet of the water. One pound of air pressure inside, Gauges in the conjunction of the caisson was lowered, one nound had to be added to the air pressure inside, Gauges in the chief of air. The highest pressure attained in the caisson was 34 pounds to the square inch, in addition to atmospheric pressure. At that pressure a man could not white and a candle blown out would immediately ignite again. Fresh water springs appeared. Beneath this caisson blasting and excavation went on feet was reached, and the caisson was then settled on rocky foundation. The inside was then filled with broken stone and concrete until the whole thing was a solid mass; and then the work of creeting the tower went on rapidly.

SOLVING A GREAT ENGINEERING PROBLEM.

SOLVING A GREAT ENGINEERING PROBLEM. Greater difficulty was encountered on the New-York

side, and the calsson was made stronger and bigger, and had to be sunk to a depth of seventy-eight feet. Even at that depth solid rock was not discovered. But jagged points of rock stuck up here and there, amid a bed of quicksand. The points of the ledge which appeared only under one end of the caisson were levelled off and the quicksand was confined within a wall of concrete, the whole area of the caisson was filled with the same material, after which the tower was erected and finished like the one in Brooklyn. There were many interesting incidents in the work of oullding the foundations. The pressure of the compress

building the foundations. The pressure of the compressed air would sometimes tilt up a causeon and a portion of the air would seeape, turowing up a large column of water fifty to siry feet high. One Sunday morning a neglection watchman caused a blow-out which covered the adjoining buildings and shipping with a coat of nord and injured two or three pressure. Under extreme pressure some of the weekingen became subject to certain physical derangements which have received the name of causeon disease. The Brooklyn caisson caugut fire several times and twice had to be flooded with water. In Docember, 1870, a circless laborer placed a lighted candle on a shelf in close proximity to the oakan cauking of a timber joint, which funded, and under the pressure the fire made its way mo the timber and out of sight. As the pressure was all out-ward no flame or smoke could be seen in the cassion, and it was some time before the fire was discovered. Colonet looding was summoned and he entered the caisson at 6 o'clock p. m. and did not leave it until 5 a. in. Overwork and anxiety, in addition to the man bours in the compressed air, had its effect, and he was partially paralyzed before he reached home. This was the beginning of the disease that has so long prostrated him.

THE TOWERS AND ANCHORAGES, The towers, built of granite, brought from Maine, 276 feel 9 inches above high-water mark. The Brooklyn tower reached its full beight in May, 1875, and its New-York mate in July, 1876. The New-York tower above the top of the caissen weighs 93,000 tons. The firmness of the foundation is shown in the fact that the tower has not settled two inches. At a height of 119 feet there are two arched openings in each tower, through which will pass the streams of travel. On the top of the tower are ddle-plates, huge fron castings, on which rest the

The cables are fastened in anchorages 930 feet distant from the towers. The anchorages are built of stone, and are 120 by 119 feet at the base and 89 feet high. Over the top of them run the readways. Imbedded in the two archorages are hune plates of from weighing twenty-intree to, seach, to which are fastened iron bars formed into chains, at the end of which are the cables that hold up the suspended part of the bridge. There are ranks in the anchorages, where the cables join the anchor conting and they can be inspected at any time by the engineers. The remaining stone work of the Bridge consists of grantejapproaches, which are long viaduets. The Brooklyn approach boghts at Sandess., and it is 971 feet long to the anchorage. The grades two feet mae menes in each 100 feet. In this distance, Prospect, Main and York sis, are spanned by from bridges. The New-York approach is 1,562 feet long from Charlhamst, in the anchorage. The streets are spanned by stone arches, except at Frankin square, where an iron bridge crosses over the station of the elevated railway. Beneath the arches of the approaches are spaces which with which in cars will rus.

MAKING THE CABLES. The cables are fastened in anchorages 930 feet distant

MAKING THE CABLES. After the towers were completed the next engineering

proplem was to get the wires over them. The cables could not be made and then lifted into place. wire was carried across by a seew on August 14, 1876. It was lifted into place over the towers and fastened to the anchorages. A second wire was then run across and the two were fastened together, making an endless wire running over Criving wheels. It was then an easy matter to run across other wires, and cable-making really began on June 11, 1877. On August 25, 1876 E. F. Farrington, the master mechanic, ero sed in a rigger's chair, which,

the river in a rigger's chair, which, was attached to the "traveller" wire rope. A foot-bridge ranging over the top of the lowers was stretched across the river to assist in making the cables. That bridge was four feel wide and was laid on two small cables 200 feet large. Two five-orthite-inch wire ropes served as handrake to this "pathway in the sky." Many persons made the perd as impover it while it was in existence.

The making of the strands for the cables, which were begin on June 11, 1877, was not completed until October 15, 1878. Each of the four cables contains 5, 256 parallel (not twisted) galvanized steel, oil-conted wires, coasily wrapped to a solid eyinder, and is 15% inches in disaster. So many wires could not be handled at once, so that each cable is divided into 19 strands. When twelve strands were champed into the form of a small cable nine inches in diameter. This was made into the centre core. On June 14, 1878, the first seriols accident in the operations of spanning the river occurred. A strand was let loose at the New-York anchorage. It swept over the top of the tower and into the river, billing two men and injuring three more. Alto general successions of the Bridge.

ONE OF THE BRIDGE FRAUDS.

ONE OF THE BRIDGE FRAUDS. In the course of the delivery of the wire in the of the diffused God and then gave forth melectious tones Brigg yard it was carefully tested, and what failed to and harmonics. The Lord, like an open harbor, received come up to the standard was rejected. It was after- cargoes from all the world, and sent out energy ward found that some of the rejected wire had again been delivered and was admitted into the work Just how much of this was used no one can tell, but the engineers assert that there is enough extfa strength in the cubies to offset any weakness from this cause.

When the cables were ready for their loads suspended bands made of wrought iron were fastened on at interbands made of wronger from were rastened on at inter-vals of seven and one-half feet. To these bands were attached suspender ropes made of sheet wires. These ropes are made to hold 100 tons each, but not more tunn ten tons weight, will come upon one of them. The sus-pender ropes hold up the steel structure which forms

penger ropes note up the sicer structure which forms the readways.

On the approaches the width of the bridge is 100 feet. Here the wagon ways are paved with fielgion blocks, and the footway, which is only three feet above the roadways, has an asphalt pavement. But from anchorage to anchorage the bridge is different. It is a deft combination of steel beams, trusses, griders and chords. So feet wide, floored with timber except in the space reserved for the railway tracks. The total weight of steel in the Bridge is 6,620 toos. The great delay in the fellivery of this steel according to contract postponed the completion of the Bridge for nearly one year.

according to contract postpone.

Bridge for nearly one year.

As now completed there are five parallel avenues one the Bridge. The outer two, ninceen feet wide each, ardevoted to vehicles. In the centre is an elevated toot path fitteen and one-half feet wide. On either side of path fitteen and one-half feet wide. path fifteen and one-nair feet wide. On enter saw of this are the railway tracks—one for cars going to Brook-lyn and one for those coming to New-York.

CAPACITY OF THE BRIDGE FOR TRAVEL. The promenade has a capacity, if persons move at the rate of 200 feet per minute, of allowing 45,000 persons to pass over every hour. The roadway will admit the sage of 1,440 vehicles per hour of an average weight of 3½ tons each, estimating three moving vehicles in every 100 feet. The Bridge will sustain 10,000 coldiers

ing, better than any ordinary bridge. The cars are to be propelled by an endless chain, but they reach the centre of the main span they will The cars are to be propelled by an endices chain, but when they reach the centre of the main span they will run to the end by their own gravity and momentum, being under the control of brakes. Passengers will get in at one end and will be unable to get out until they reach the other end of the bridge. It is calculated that eighty cars, such as are used on the elevated reads, can be kept in operation at once, twenty of which will be on the bridge at one time. Each car can accommodate 100 passengers, and 80,000 persons can be taken across in an hour.

bridgs at one time. Each car can accommodate 100 passengers, and 80,000 persons can be taken across in an hour.

The total length of the bridge is 5,989 feet. The length of the river span is 1,595 feet, and at the centre it will be 135 feet above high water in enamer, and 138 feet in winter, the difference being caused by the effect of the heat and cold on the steel. The wind howing at a velocity of 160 miles an hour would not hurt the Bridge. The greatest velocity of the wind here is 76 miles an hour. The centre of the suspended structure is 15 feet higher than the roadways of the towers. Not over 3 per cent of the vessels that enter this port would have to strike their top-masts in passing under the bridge. From anchorage to anchorage the Bridge is 3,460 feet long and the total weight of the suspended atmoure is 17,780 tons. The cables, Chief Engineer Roebling says, are strong enough to pull up the anchorages, which weigh 60,000 tons each. The Bridge is to be lighted by 100 electric lights.

OPPOSITION TO THE UNDERTAKING.

Like all great local enterprises the Bridge has met

Like all great local enterprises the Bridge has met stout opposition. A memorial signed by 200 leading was sent to the Legislature in 1879 asking that the work be stopped, that the Bridge would obstruct navigation and would be useless. A long investigation followed without any particular result. In 1873 under the pressure of public opinion, and as the result of an the pressure of public opinion, and as the result of an investigation, Mr. Kingsley resigned the office of Super-intendent. The management, however, was changed only in appearance, and the result was the passage of the act dissolving the original company. But the same managers were reappointed under the new law and they have managed to keep control ever since, ity had management and the delays caused by polinical opposition over \$1,000,000 at least has been added to the cost of the Bridge.

# PREPARING FOR THE OPENING.

The Society of Old Brooklynites will attend the opening of the Bridge in a body, cach member wearbadge. Colonel E. W. Sprague will be Grand Marshal. At the reception to be given by

Chief Engineer Roebling and Mrs. Roebling at their house on the afternoon of the Bridge opening, a bust of the former will be displayed. Afready the bridge has been dubbed the "Penny Bridge" and the "Colossus of roads." The 233 Regment will assemble at its armory in Broeklyn at 10.45 on Thursday morning and thence proceed to Remsen-st, where the line will be formed at 12 o'clock to eccort Mayor Low and other Brooklyn officials to the Bridge. To-morrow and on Wednesday the structure will be closed to all except the workmen who will make the final processing for the opening.

-NEWS FROM OUT OF TOWN. officials to the Bridge. To morrow and on Wednesday the structure will be closed to all except the working who will make the final preparations for the opening. The main spar and approaches will not be decorated on account of the firework display, but the stations are to be decorated and will display flags, and bunting in profusion.

UNITED STATES VESSELS TO BE PRESENT.

FORTRISS MONROE, Va. May 20.-The flagship Tennessee, and steamers Kearsarge, Vandalia and Yantic sailed hence at 4 o'clock this afternoon for New-York to take part in the ceremonies attending the opening of the New-York and Brooklyn Bridge on Thursday next.

WORKINGMEN ASKED TO STAY AWAY.

The Central Labor Union met at Clarendon Hall yesterday afternoon, James Bagley, of the Unity Labor Club, presiding. The Tenants' Detence Committee asked for funds to carry on the work. The Secretary read a communication from Dahlgren Post, No. 113, G. A. R., deploring that, as American citizens holding high positions of trust, the Bridge Trustees should be so lacking in common courtesy, patriotism and public spirit, as to refuse to change the date of the Bridge opening. This gave rise to a discussion in which William McCabe characterized J. Adriance Bush, one of the Commissioners, as a "fresh young lawyer and dude, who parts his hair, like his name, in the middle," A The Central Labor Union met at Clarendon Hail as a Tresh young lawyer and the middle." A man shouted "God save outd Ireland and the Queen;" and the sergeant-at-arms incontinently ejected him. A resolution was then passed to issue the Queen;" and the sergeant-at-arms meontinently ejected him. A resolution was then passed to issue a proclamation calling on workingmen to keep away from the Bridge on Thursday, and agreeing to have a procession of all the trades unions in New-York and Brooklyn on the Fourth of July and formally open the Bridge. A proposition that the trustees should be requested to let the procession pass free of toll met with some opposition. K. P. Davis thought that that would be a confession of pagnerism. The Framers' Union reported that at Hecker's mills in Cherry-st, union framers had been employed to do all the heavy work, "scabs" to do the light work. Unless the builder employs union framers to-day all the bricklayers and laborers will stop work.

About 100 truck drivers met in Military Hall yesterday afternoon for the purpose of effecting a preliminary organization. Another meeting will be held next Sunday.

#### THE BROOKLYN BRIDGE AS A TEXT.

The Rev. John W. Chadwick preached yesterday morning in the Second Unitarian Chi Brooklyn, at Clinton and Congress sta., on "The Completed Bridge."

"The deities of aucient Rome," said the speaker, introducing his subject, "were personified abstractions. One of them was Terminus, the god of bounds. The beginnings and the endings of all important enterprises wer his peculiar care. If we to-day were living under that old regime, how would the temples of this god be crowded! How would his altars smoke! For we have come to the completion of the greatest civic enterprise in which our numerical energy has ever been engaged. Our insularity has been broken. The art of man has joined together what God had put asunder, and there is no more sea, The preacher then sketched the historical events which gave to the Pope of Rome his title of Pontifex Maximus, the chief bridge-builder. Speaking of the peculiar associntions of bridges, the preacher said: "In my native town was one that a child could leap across, and yet it was a bridge of sighs, a place where lovers lingered under the drooping willows. We called it the wishing bridge. A bridge was one of the first wishing bridge. A bridge was one of the first wonders to me when I ventured out into the world, the same that Hawthorn has immortalized in his 'Toil Gatherer's Day.' flow pleasantly the schoes of the hoof-beats on its planks ring out in the air of memory. And what a piece of happy fortune it was that took my manifer feet hundreds of times across the bridge on which Longfellow stood at midnight. We all, I trust, have bridges of our own that span the guil between our childhood and our later years, our mankeod and our youth."

The speaker commented on the beauty of the Broaklyn Bridge, and gave statistics in regard to its construction, and also drew comparisons between the present prosperity and growth of the two cities now and their condition years ago. He said that the timon of the two cities under one government was a consummation devoutity to be wished, and in conclusion, referring to the Bridge, said: "Standing there so strong, so beautiful, may it invite us to a firmer strength of character, a noofer symmetry of word and deed. From generation to generation may the men and women who scream back and forth across it be wiser, happier and better."

#### MR. BEECHER ON THE INNER MAN

Mr. Beecher yesterday spoke of the grace and power of the inner spirit of man. He said that some people drew from the Bible the teaching that the wear ing of gold and jewelry was wrong, but they missed the point that interior adorament must go hand in hand with outward garnishing. Oriental women were stayers at home, managers of a household, without education. In Athens no virtuous woman was educated and knowledge was an imputation of impudicity. In this fact lay the root of the New Testament decree that women about not speak in public, for if they did they would be counted common. As Oriental women were forbidden to educate themselves they spent their time in outward ad-But Peter and Paul taught the higher education of woman. They did not believe that the line of her life lay in the bread-trough and the needle, but that she was capable of higher training and development.

Man was the great recipient and then the great actor, fructifying the world beneficently. There was a constant reciprocal action of the world in the mind and o the mind upon the world. Man, like a magnificen organ, received the impulse of the forces of nature and of the diffused God and then gave forth melodious tones and physical force, like the revolving tide commerce. The laws of nature were sterile until min fractified them. Nature made germs and man mad-harvests. The character was determined by the relative proportion of the receiving and of the out-giving power of a man. Civilized society showed every grade of the development of man, from savagery to caligatemment. The contrast between Judaism and Christianity was that the former was receptive merely and the latter was an out-giving torce. But there was also the same discrimination existing among Christian seets, and even in separate churches. Some churches were mutual insurance componies acainst future fire. But the real christian Church was of a missionary nature and took in all and went out to help all.

The toner, hidden and silent man determined character and condition. Those was reached the highest develop-ment tail a palace of line character.

The inner, hidden and alient man determined char and condition. Those whe reached the highest de-ment had a palace of inexhanstible strength and within. Some men, if they acted out all that we then, would be animated posits and scourges; ke just winin the law, their whole inner life was bare, was what he thought, felt and desired. The rea-was the laner man. Men should so organize their as to be fertile without and rich and fruitful we Take are of the outward man for time, but takes care of the hidden man of the soul for eteratty.

# THE ATTACK ON NEW-HAVEN BEGUN.

New-Haven, Conn., May 20 .- A detachment of the Salvation Army began a campaign in th city this afternoon. Captain Victor Palmer, Captain J. Irons, Captain Miss Lettle Collier, Lieutenant John Boville, and Private Mrs. William Schmidt spoke add sung from the old State House to an audience of 2,500 in the afternoon and 4,000 in the evening. The audi neewere quiet and attentive. The Salvation Army intenes to stay in the city several months.

# BASEBALL NEWS.

The struggle for the League championship ontinues close and exciting. The Providence team have held the lead for two weeks. The Chicago team began to play a better game last week. The Detroit nine have moved up one place. The Boston nine have joined the New-York and Philadelphia Clubs in their struggle for last place. The record of the games played to date is as follows:

Clubs.	Providence	Chirago	Detroit	Cleveland	Buffalo	Buston	Now York	Philaderphia.	Games won	Gathes played
Providence. Chicago Detroit Cleveland Buffalo Boston New York Philadelphila	0 1 2 1 0 0 0	0 0 0 0 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 3 0 0	2 0 0 3 1 0 1	0 1 0 2 1 	332010 :0	3220030	05876448	13 13 12 13 13 11 13
Games lost	4	4	4	5	7	7	19	10		**

By defeating the Metropolitan nine three straight games two weeks ago, the Atalete nine, of Philadelphia, placed themselves in first position in the race for the American Association championship. The Metropolitan nine played better games last week than usual, and their friends expect to see them in third place by the end of the present week. The following taids will show the standing of the clubs, and the games won and lost by each to date: By defeating the Metropolitan nine three straigh

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Clubs.	bietic	acimati	distille	stropentan.	Logis	turu bus	THE OTOMETH	egheny	illes won	mos pluyed
Athletie Cinclinati Louisville Metropolitan St. Louis Columbus Baltimore Aliegneay	000000000000000000000000000000000000000	0 20 0 0 0	02 :02200	300000000000000000000000000000000000000	0 400 . 400	02302 00	5 0 0 2 0 1	2004000	1187666553	13 13 13 13 13
Games lost	1	5	6,	7	8	7	8	9		

At the time when the art season in London and Paris is at its height the season in New-York draws to a close. Now that the last picture has been carted away from the Academy, and the little Venetian building has assumed its summer aspect of sober quiet, there is nothing more left to look for in the way of exhibitions. Perhaps there are some who fall to regret this, for the past season has brought a surfeit, and that to come promises still more. The artists themselves are well wearied of ralleries and studios, and the Tenth-st., Sherwood, and other studio buildings are weekly yielding additions to the exedus from the city, which is now

thoroughly under way. Every week the name of some artist appears in a steamer list, while sequestered haunts on Long Island, in the Adirondacks, among the Berkshire hills, and in a hundred favorite summering places, will soon again their wonted visitors. Several of the other know again their wonted visitors. younger men will, as usual, be found in Paris, Spain and Holland. Few of any age will soon be left in New-York, as is hinted by the many studios already deserted. The past season has not been a thoroughly successful one, either in the quality of the work exhibited or in its

pecuniary results. The opening was encouraging, for the autumn exhibition of sketches and studies at the Academy went off well, and the sales at the Salmhgundi amounted to \$5,965, against \$5,000 in 1881. The first serious failing off was at the water color exhibition, where the sales reached only \$18,000, against \$33,000 in 1882, \$32,000 in 1881, and \$21,000 in 1880. The sales at the exhibition of the Society of American Artists were only about \$3,500. At the Academy the saics were more than up to those of last year —but below those of 1881. The saics were small at the Brooklyn water-color display and at the Philadelphia exhibitions. Outside of the exsibilion galleries the depressed condition of the market has been even more severely felt. Fewer private commissions than usual have been given, and there has been little studio buying. At the sales-galleries it has been noticeable that only mediocre and unimportant collec-tions have been brought forward, with one exception. The Runkle collection has been the only one of note offered for sale during the season. The dealers have made much complaint of the duiness of trade, yet none are sufficiently discouraged to plan a reffrement from the business. Apart from the financial side of the art season, there is not much reason for encouragement in its artistic aspect. There have been few pleasant surprises at the exhibitions, or for that matter in the galeries of the dealers; but there has been a steady tide of commonplace mediocrity. Some few ple-tures will be remembered like the water-colors by Messrs. Abbey and Parsons, and the others by Mr. Winslow Homer, like the portrait by Mr. J. S. Sargent-about which a Boston evening journal prints the mushlest ravings that Boston estheticism has yet produced—and the portrait by Mr. J. A. Weir, and like the large paintings by Mr. Inness, Mr. G. H. Smillie, and Mr. Quartley at the Academy. In sculpture the season has been barren so far as exhibitions are concerned. On the whole, the past season has seemed to bring no fresh inspiration and no marked

For the summer there will be the admirable loan collection at the Metropolitan Museum, and there will be pictures on exhibition at the American Art Gallery, where severat of Mr. John Lutarge's works are already on view in the front room. The exhibition of sketches and studies will be opened at this gallery on October 15, and at the same time the Metropolitan Museum will open its eighth loan exhibition, which will include the coltion of old masters lately described in THE TRIBUNE.

It is understood that the autumn exhibition at the Academy will be opened about about October 1. Then omes the Salmagundi in December, the water col and the usual round, varied by whatever unexpected manifestations may appear, the appearance depends upon the success of various projects which are now under

The out-of-town summer exhibitions are already we inder way. There are exhibitions open at present in San Francisco and Salem, Mass., and one opens at Rochester to-morrow evening. The display of the Buffato Academy of Fine Arts begins June 1, and that of the Mt. McGregor Art Association opens in June. The for-mer will be the first exhibition held under the auspices of the American Art Union. Pictures for the Chicago Exposition will be collected by Grady & McKeever in this city from July 17 to 22. The secretary of the Art Committee is Sara T. Hallowell. The expositions will ontinue from September 5 to July 20.

New York exhibits for the eleventh Cincinnati exhibition about be ready by August 1. Enery H. Barton, esq., is the superintendent of the commissioners. This exhibition will open on September 5, and close October 6. The third annual exhibition of the New England and Manufacturers' and Mechanics' Institute will be open from September 5 to November 1, in Boston. Works received August 20 to 25. It is intended to have an illustrated catalogue. The art director is F. T. Rob-

inson, esq., Hotel Pelham, Boston. Arrangements have been made with Thomas A. Wil murt to collect, box and forward the contributions of New-York artists to the Detroit Loan Exhibition, which is to be opened September 1. Lists must be sent in by July 1, to Mrs. H. H. Crape Smith, 789 Jefferson-

ave., Detroit, Mich. Parisgoss'pspeaks of a scarcity of first-class printings and an abundance of ordinary works. New-York dealers are as usual actively exploring the field. Knoedler & Co. are the ewners of Jules Leferbyre's "Psyche" in the Salon, a nude figure profile, scated upon a rock. The other salon paintings of the firm are Kasmmerer's "A Quack in the time of the Directory," Miss Elizabeth Cardner's "The Prisoner"—two Young girls with a captive bird—and "An XVIIIth Century Christening." captive biru- and "An XVIIIth Century Christening," by Firmin Gerard. Mr. Schais has bought Bougeran's "Nigat," which is in the Salon. This is a nymph half enveloped in dark drapery, hovering above the card somewhat in the style of the artistance of the card somewhat in the style of the artistance of the card and the style of the artistance of the card and the style of the artistance of the card and the style of the artistance of the card and the somewhat in the somewhat of the style of the sty

The American Art Association will keep their galleries at No. 6 East Twenty-Lairdest, open to the public between 2 and 6 p in te-day, in order to give an opportunity of seeing the painting, seeing tree, etc., con risuted to the Munica International Exhibition.

to the Munica International Exhibition.

Last Tuesday was the day set for the sale of the Weiner collection of drawings by "old masters" at Sturtgart. The catalogue opens with two pen and ink drawings by Abrecht Durer. There are two drawings by Yandyie, one executed in red chair with remarkable spirit and the other a portrait of the sculptor linbert. Then come a sketch in chair by Franz Hais, a head ascribed to Hobein, although the mecogram forming the signature is not his, a drawing in septa by Montegon. The interior of a peasant's hat in pen and ink by Auraan Van Ostende, a drawing of two horsemen by Paul Pottes daired 1646, a landscape in septa by Rembraedt, a drawing of two winged genti playing in the conda by Ruoens, and a black chaik portrait by Gerald Teriourge.

Rubens, and a black chalk portrait by Gerald Terburg.

An article upon the Salon in Gallgnam's Messengementions the works of some American artists as follows: "La Chade," by Mr. F. A. Briggman. Thus artist would have done better to have chosen a subject that had not been made by French artists a reagains of the Salon. However this may be, Mr. Bridgman has given us a good pleture. This woman, listlessly touching the strings of a guitar amid seenery that charms and soothes the troubled mind, conveys very forcibly the idea of the grasshopper in the fable, that song through the summer and gave no thought to the winter. Mr. Bridgman has painted a very successful picture. 'Is Port d'isigny (Caivados).' by Mr. F. M. Borgs. A large canvas giving a view of misceilaneous shipping in the mouth of a riv. r; very carefully and effectively painted. Mr. Bogga has also sent a very artistic picture. It he Place de St. Germain des Près, which all who know Paris will immediately récognize. 'En Normandie,' by Mr. H. Bacon. A very charming picture winch should be studied closely. We have a genuine rustic figure here in the Normandy girl, who is carrying a pail of milk through a field of waving green core. American artists must have a keen eye to the truths of nature. This admirable quality is remarkably shown in the works of several who exhibit this year.

"In Salie 4, Mr. John Sargent, whose picture of a

keen eye to the truths of nature. Instantancing quanty is remarkably shown in the works of several who exhibit tors year.

"In Salie 4, Mr. John Sargent, whose picture of a Spanish Daucing Girl' made such a sensation last year, has a painting less startingly original, perhaps, than the Spanish subject, but to our taste much more pleasing. The objections of the 'anti-Impressionism' nave no pince here. Four little girls, of offerent ages, are depicted in a room that, by its furniture, is suggestive of wealth and refinement. One of these children is standing with her back against a tail Oriental jar, with her hand locked in that of a small triend. The attitude and expression of these little girls are exceedingly graceful and pleasing. In the overground is a much younger c. the scated on the floor playing with a doll, and a little be the title another, somewhat too old to be the companion of the one whose thoughts are centred on her doll, and hardly old enough to enter into the thoughts of the couple who are standing by the vase. The motive of the artist in painting this little girl on the left seems to have been to deplet a child's reverte. The face is indescribably charming. Every detail of this pointing is not only admirably cenceived, but highly finished There is no lack of 'impressions' here, but they are impressions which will bear the closest hispection. We have seen no picture in the Salon which pleases us more than Mr. Sargeott's.

"In Salle 19 is another ristle subject, 'Sans Dot,' by Mr. D. Roway & Knight, We have a distant view of a than Mr. Sarzeaut's.
"In Saile 19 is another rustic subject, 'Sans Dot,' by
Mr. D. Endgway Knight. We have a distinct view of a
wedding party crossing the fields, headed by dancing
boys and fidelers, and in the foreground stands a village
gr?, who has been cutting herbare, and who is gazing
with a sad face at the passing procession. Having no

and perhaps she never felt her poverty so keenly as in looking at this joyous wedding party. Mr. Knight's painting tells the story of this poor girl's thoughts very sumply, yet forcibly. It deserves to take a high place among the best works to be found in the Salon."

The London Telegraph says:

The London Telegraph says:

There has been on private view for the past two or three days, at Mr. Agnew's gallery in Bond-st., the largest and in all respects most considerable of the four pictures intended by Mr. Briton Riviere, R. A., for show at Burlington House. It is called 'The Last of the Crew,' and represents the gaunt, solitary figure of a gray-bearded mariner in Arctic clothing, erect on a ledge of tee, holding his lowered teleacope in despair, and gazing moournfully over the fearful desolation, white a big Eskimo dog, faithful to the last, leans lovingly against in a. A little further off, other dogs are crowding round one of their fellows, that snarts fercely at them as he clutches a dry bone. In the same gallery with this chief work of Mr. Riviere's hand—he having also painted the scene described by St.Mark, the maddened herd of swine rushing down into the Lake of Gaillee—are two motiers subjects, a sick child visited by her old playfellow, a dog of the affectionate colile breed, who invites her to a game of romps; and "Giants at Play," twelt, three huge navvies lying on the ground and amusing themselves with the gambels of one small white puppy.

A London correspondent writes:

A London correspondent writes:

London art gossp reports that Mr. Frank Dicksee, A. R. A., has sold his "Foolish Virgins" for £1,600 to Mr. Agnew. Mr. Keeley Haiswelle has aoli everything in one to Agnew, and has sent several water colors to the Institute, where they are admired as much as any picture in the gallery. Mr. H. Stacy Marks, R. A., is another artist whose pictures are nearly always sold ahead, and so is Mr. B. S. Leader, recently made A. R. A. Of the rising men now coming well into notice is Mr. Reid, who has sold his big picture of a hunting seene, called "A Spill," to Mr. Lefevic, of course to be engineed. A correspondent looking in lately at Lefevie's gallery in King-st, saw a fine collection of Rosa Bouleur's pictures, including "Le Vicux Lon," as well as a "Wild Cat" and a "Badger." At the Institute the honors seem to be carried off by Linton, whose figure-subject is magnificent, Huson and Wetherbee, Keeley Halswelle and Orrock. C. E. Green has also done very well in two figure-subjects. A London correspondent writes:

well in two figure-subjects.

The Pall Mall Gazetie says: "The annual exhibition of the Royal Academy of Arts in St. Petersburg opened last week, and the Russian papers are unanimous in agreeing that it presents less of interest than usual. The picture of the year is a 'Lovers in the Ruins of the Catacombs,' by Siemiradsky, the Polish Alma Tadema, whose 'Nero Watching the fortures of the thristians' made so great a sensition in 1876. His work this year is of a much quieter cast, an dyllife scene very carefully and highly innished. M. Oriovsky's iandscapes have attracted a great deal of attention; these are large and realistic renderings of nature in the south of Russia. Almong Russian artists whose work is familiar in the West of Europe, M. Basil Vereschagin is one of the most prominent; he sends this year a picture the description of which suggests the influence of Bastien-Lepige, a peasant girl gathering wood in a forest. The most eminent of Russian sea painters, M. Aivazovski, has painted the Baltic in winter storm and the Marmora under a blazing summer sky, thus emphasizing the wide stretch of Russian dominos in Europe. Russian art seems to be somewhat at a standatill; her greatest iden are in voluntary exile at Munich, Rome or Paris; and a salutary freshness appears to be the one thing wasted to the technical deverness of the Russian art schools."

#### MR. MOODY AT COOPER UNION.

HUNDREDS UNABLE TO GAIN ADMISSION. HOW TO BRING THE MASSES UNDER THE INFLU-ENCE OF THE GOSPEL-MR. SANKEY'S SINGING,

The fifth anniversary of the Evangelistic rock, which is carried on in Cooper Union by a commitee of citizens and conducted by C. W. Sawyer, was elebrated last night and the event was signalized by an address by D. L. Moody and some singing by Ira D. Sankey. Mr. Sawyer's meetings have frequently een large, but that of last night was very remarkable The hall of the Union was crowded, and admittance was icnied to at least 1,000 persons, some of whom went to the annex, or overflow, services in a hall in Fourth-ave. breetly opposite the Institute. Mr. Moody had been announced to speak on the subject: "How to bring the nevangelized masses of our large cities under the power

and influence of the gospel."

The "unevangelized" formed a very small quota of those who listened to Mr. Moody, for on the platform and in the chairs on the floor of the hall were hundreds of persons who are identified with religious movements in the city. Among those who were on the platform were William E. Dodge, jr who is the president of the committee having the coper institute meetings in charge; Morris K. Jesup, Cyrus W. Field, the Rev. H. M. Field, T. P. Freeman he Rev. W. S. Rainsford, J. J. Jones, John N. Sterns, Russell Sage, J. H. Swestzer, L. H. Biglow, W. H. Bar our, Professor Greer, Professor Thatcher, and Miss Harnet Weed, who in a manner represented her father, who was a frequent attendant on the meetings. The meetng began at 7 o'clock, and its first hour was devoted a service of song and prayer in which Mr. Sankey took an active part. A number of new and old songs were an active part. A manufacture in "Bringing in the sheaves,"
"It is well with my sour," "When the miss have rolled away," "Fell tout," and other hymns of the older congregational order. In the refrains and the familiar emiregational order. In the retrains and the familiar sours the coursegation redded out a thrilling volume of sound, and through every minute of the service they were close in their attention to all that was said. The Rev. Mr. Ramsford took part with Mr. Sawyer, Mr. Moody and Mr. Sankey in the service to the extent of leading in prayer, and after Mr. Moody's address John Burns, of Castle Kemyss, Glasgow, Scotland, made a few remarks.

maria, so remarks.

Mr. Moody's voice was in poor condition, and soon after he began to speak he had to stop for a time to recover the use of it. He spoke in its familiar, energetic way, and in an informal, somewhat disconnected manner, discussed the possibilities of continuing and extended the possibilities of continuing the continui coming summer. He read the story of the woman of amaria from Jonniv. and took for a text a part of the array with verse of the same chapter: "Say not ye, there are yet four months and then cometh harvest?"

It is said in part:

I haven't any doubt that nine out of every ien person in this hall that profess to be Christians would say a sked: "You can't do much in New York in the next our months, June, July, August and a part of Septem for are too hot for retigious work," It is so with the unik of the people; they are saying "There are yet fou months, and then cometh harvest. Next fall well have a harvest." I genomber that fivegrears ago when we talked about starting these meetings he people said; "It can't be done in New-York; the some are all out of town in summer." Purso, the here would be enough of them left for one meeting any how, and they have been going ever since. There is no better time to work for the Lord than during the next four mouths. Many ministers will be gone, and that will give the layine a canner. Suppose 400,000 people go away, they won't be missed. The Lord is as ready to work in summer as in winter, and He is willing to use any man or any woman who has a desire to serve Him. It is not our strength that He wants, but our weakness. He is continually saking up week hastroments to do His mignty deeds. I pily those Christians that get excused from doing the Lord's work; they don't know what a intury it is. George Fox said that every Qhaker ought to sinke the country for ten miles around, and I think every Christian ought to. If we could take the talent that hes domain here to-night, what a weighty influence would go forth from Cooper Institute to-night. You must bear in mind that everything we do in this work is everhating, no matter how email it what a weighty indinence would go torch from Cooper institute to-might. You must bear in mind that everything we do in this work is evernathing, no matter how small it seems. If I am instramental in leading one soul to Carnet, my life hasa' been a failure. If people can only do a little thing God is willing to use them. It's a mistake to do nothing because you can't do a great thing. I don't doubt that if there had been some mewajaper reporter about the temple at the time that the widow put her two mites in the box he would have said; "Psnaw, that's too trifling a thing to write about. The Jerusalem Times doesn't care anything for that." But the Lord who sat opposite the treasury made one remark that has made the widow written that would be a blessing to all people he didn't go to Cambridge or Oxford. He went down to Redford and pecked out a drunken timker in juil, and the hook his made a Piggin's Progress through the world.

Mr. Moody said that he found Mr. Sawyer discouraged, because so many workers had failen. The chair that the venerable. Thurlow Weed used to occupy was now occupied by his daughter. Ex-Governor Morgan had failen and Dr. Rishop was gone, but the work need not cease. Out of the death of Stephen, which probably seemed a great calamity, came time conversion of Saul.

The dirst live years are passed and we are beginning the six'h, he continued, "and my advice to you, Brother Sawyer, is to go right out into deep water and throw the not. Instead of \$9,000 a year, this work ought to have \$600,000, instead or one meeting here, there ought to be one in every theatre and circus tent in the city. There are plenty of men to preach. They don't cost anything. There's Mr. Dodge; I'd raisher hear him than almost any preacher in the city. Here's my livind Cyrus W. Field; he can talk about raisroads, and if so why not about the Kingdom of God I". In its closing prayer Mr. Moody prayed; "God bless good Jerry McAuley."

# SERMONS TO SOLDIERS.

The annual sermon before the 13th Regiment was preached last evening by Chaplain Henry Ward Seecher in Plymouth Church. About 400 men, under ommand of Colonel D. E. Austen, occupied the body of he church. Sitting next to Colonel Austen in the fre pew was General C. T.Christensen. Mr. Beecher preached

upon the value of citizenship.

The Rev. Dr. J. O. Peck preached the annual sermon efore the 14th Regiment, in the Hauson Place Method, lat Church in Brooklyn last evening.

The 47th Regiment, Colonel T. V. Tuttle commanding id his entire staff, attended service last night at St. Paul's Episcopal Church, Poun-st, and Marcy-ave. General ownell, formerly Colonel of the regiment and now Brownell, formerly Colonel of the regiment and now dress. The regiment mustered 175 exclusive of the Veteran Corps and the Cadet Corps. On an arch in front of the hancel was the legend "God Bless the 48th Reg't." The Rev Newland Mayuard, rector of the church, and chapiam of the regiment, preached from Paul's words to Titus, "Young men likewise exhort to be soherminded." In speaking of the cadets, he praised the good sense of the lads in uniting themselves to a corps where they are getting an education and learning habits of discipline and regularity which they would never regret in they are getting an education and learning habits of dis cipline and regularity which they would never regret in after life.

THE NEW CRAZE.-Provincial manager (to scion of ar-stocracy, who has come to commence): "So, my lord, you're here at last! We've had three rehearsals without you, and it's produced to-morrow. I suppose you've been studying since you've been here!" Lord Plantagenet (pleasantly): "On-ah-no, I've not begun yet. The fact is still more pleasantly), I'd no idea that Prumborough was such a jolly place!"—[Punch. fice at the passing procession. Laving to

THE POLICY OF RAILROAD LEGISLATION IN CALIFORNIA.

A LETTER TO THE RAILROAD COMMISSIONERS OF THAT STATE FROM ALFRED A. COHEN.

The Board of Railroad Commissioners of California recently asked Mr. Alfred A. Cohen, formerly conspicuous as one of the ablest and most persistent anti-railroad agitators in that State, for his views upon the subject of regulating rates and other transportation problems. In the following reply Mr. Cohen, acknowledging his own mistakes in the past, assumes the folly of contending against natural laws, and discusses the subject clearly and candidly from that point of view.

MR. COHEN'S LETTER.

NEW-YORK, March 14, 1883. To the Honorable the Board of Railroad Comn

the State of California. GENTLEMEN: I have the honor to acknowledge a letter from your president, sent to my office in San Francisco, asking me to designate a time when I can appear before you and give my views upon the subject of regulating the charges of railroad and other transportation companies, and upon such other matters as are, by the Constitution and laws of the State of California, within your invisdiction.

The letter is accompanied by a number of questions which I am requested to prepare myself to answer. I regret that it did not reach me in time to reply in person. I received it but a few hours before my departure from San Francisco, and therefore can respond only in

this manner. But before proceeding to do so, I take leave to say that although I recegnize your authority to require the attendance of any person you may desire to examine, I regret that you have called upon me to testify in a atter as to which, from my past well-known relations, I may not be considered an impartial witness. While the power conferred upon you by the Constitution and statites of the State of California is general, in that it relates to all railroad and transportation companies, yet it is Well understood, and it is the fact, that the principal objects of your jurisdiction are the Central and the Southern Pacific railroad companies and such other companies or railroads as are within their control. It is equally well known that for some years my relations with the gentlemen having the management of those roads have not been friendly. In fact, I have been, and roads have not been friendly. In fact, I have been, and am yet, engaged in important litigations adverse to their interests. In that view, it would certainly have been preferable for you to have sought your information from some other source—one that could not be held amenable to the charge of prejudice. It being, however, my duty to comply with your request, I shall do so to the best of my judgment and ability, leaving it to you to determine how far my views are affected by the hostile relations I have for so many years held toward the principal corporations whose business now comes within your control. within your control. DUTIES AND OBLIGATIONS OF THE COMMISSIONERS.

that your body shall have the power, and it shall be con- duty, to establish rates of charges for the transportation of passengers and freight by railroad or other asportation companies, and publish the same from time to time, with such changes as you may make. This s certainly an extraordinary and very extensive power to be intrusted by constitutional enactment to any body of men, and should be exercised with great caution, only after due and patient inquiry into all those facts and circumstances, a due understanding of which will anable you to administer your office in such a manner tice upon the corporations whose property and business is thus taken out of their hands and confided to your official regulation. In this connection I venture to certainly frustrate the object which the framers of our Constitution had in view than hasty or ill-considered action upon your part. If the tariff, which you are alled upon to frame, shall be unjust and tyrannical in ts provisions toward the railroad corporations, while the mjury to the corporations will be for the time irreparable, it will be only temporary; on the other hand, it will esuit to checking, if not preventing, for a long period of time to follow, any further legislative interfer with or regulation of railroad management. In other words, an abuse of any of your powers to the injury of railroads, will inevitably result to the disadvantage of the people. Undoubtedly, the convention that framed the Constitution, from which you derive your powers, entained many extremists whose avowed purpose was o act harshly and even unjustly to railroad and other ransportation companies, yet the people who adopted of every honest citizen who voted for the Constitution. and made it the organic law of the State, was to provide holy of men who would do full and complete justice, so far as their ability extended, between parriers. If it had been proclaimed, in advance of the a power upon three commissioners of the State of Caliporation, it is needless for me to remind you that such power never would have been conferred, the Constitution would not have been adopted. All that the people of California ask of you is, that you will approach the consideration of the questions which are confided to you a calm and judicial spirit; that you will not determine the questions, or any of them, intrusted to you by the Constitution, until you have that sufficient evidence which every well regulated and impartial judge insists upon having before he will pass upon the rights or interats of his fellow-citizens. It is hardly necessary for me to suggest to gentiemen of your experience and learning in the law that jurisdiction means a hearing and deternation, not determination without hearing; and I venture to say that any action on the part of your board which shall proceed upon any other theory than that of right and justice founded upon a sufficiency of legal vidence will not receive the approbation of those whom it is proposed to serve by such action. The sober it is proposed to serve by such action. The sober thought of the people of our State may always be upon in the interests of justice and good order, y officer, no matter whother intrusted with ex-, legislative of judicial functions, who shall be by super-serviceable zeal in the supposed inter-tie people, or from any motive, to perpetrate an exagainst the property or rights of any one, no whether a corporation or an individual, will find not that he has mistaken the temper of those has affected to serve. COMPLAINTS AND RELIEF.

With these preliminary remarks, 1 pass to one of the

principal questions you have desired me to answer. It is "What, in your judgment, are the principal grounds of complaint against railroad and transportation compa-nies, and of which the people of this State desire relief by

the action of this board to I say, in reply, that in my opinion, based upon several years of experience and discussion, both public and private, the principal benefit to be derived from the existence of your body is such action as will prevent trans-

portation, and especially railroad, companies from unwill compel every carrier to give to every shipper the same rights, privileges and advantages for the same apensation as it gives to every other person similarly alleged grievances which are claimed to have arisen from the practice of making special contracts and special rates for the transportation of merchandise. In other words, I do not believe that the people of this State are so much for the regulation of the prices to be charged for transportation as they do that every one having occasion to use railroads shall be treated alikethat they shall be served in the order of their application

and for the same consideration.

sidered and treated as a common highway, and it sho not be permitted to charge one man for the transpor-tation of his property any higher rate than it charges to the most favored person. It, is in my judgment, to this practice that much of the ill-will of the public against rallroads is due. It is the most pernicious of all abuses pertaining to the management and operation of railroads, and it is the one that calls for the most vigorous

In its relations to the public, a railroad should be con

competition in the ordinary business of life would be mply impossible. The favorite of the managers of a railroad, controlling the transportation to a particular point, would at that point bave such advantages as to defy all competition, either of capital or skill. To reas and to prevent the possibility of such evil in the future, the people are looking to you with anxious eyes, And in this connection I refer you to the case of Ever-

Company, reported in the Law Reports 3, Appeal Cases , which was an action to recover the amount of unlawful over-charges paid by the plaintiff; and is a direct adjudication upon the illegality of the practice of discriminating between persons by a railway company.

The House of Lords, by Lord Chancellor Cairns, said:

The House of Lords, by Lord Chancehor Carris, sant:
"Is the plaintiff in the action obliged to pay one sort of
remmeration forservices which the railway performs for
him while the company performs the same service for
other traders either for less remmeration or for no remuneration at all I The clear and undoubted right of a public
trader is to see that he is receiving from a railway
company equal treatment with other traders of the same
kind, doing the same business, and employing the same company equal treatment with other traders of the same kind, doing the same business, and employing the same movement. If all the grain raised in California was tradic. In my opinion, that is not the case with regard to this plaintiff; therefore, I think he is entitled to recover the moneys he has paid under profest."

Lord Hatherly, concurring, said: "The charge must be the same to all for the same terrice performed in the same manner for carrying the goods for the same distance and for similar services rendered in every other."

The same to all the grain raised in California was tendered to the Southern. Facific Railroad Company at Endered to the Southern Facific Railroad Company at

TRANSPORTATION PROBLEMS. | way. I think the money he has paid can be re back."

Lord Biackburn, also concurring, said: "The 90th section of the Railways' Consolidation Act says: All smoot tolls shall be at all times charged equally to all persons and after the same rate, whether per ton per mile or otherwise in respect of all passengers and of all goods of carriages of the same description and conveyed or propelled by a like carriage or engine passing only over the same' portion of the line of railway under the same circumstances. The Legislature has clearly said that the tolls must be charged equally to all persons in the same circumstances. Money extorted by inequality is to be recovered in the same way as if it had been money extorted by making an unreasonable charge."

FAVORITISM AND DISCRIMINATION. Answering your next question as to whether I have any personal knowledge of the exsitence of any system or instances of favoritism by which persons or places are discriminated against, I will say that as to persons, I do not know of any recent acts of discrimination. In the past I have personally suffered from the practice in the refusal of a railroad company to transport my property. I understand, however that cases of favoriti on the part of railroad corporations do still exist. But I venture to suggest that your board is provided by the Constitution with every facility for discovering whether such grievances exist or not; the language of that instrument being: "Said commissioners shall have the power.
. to hear and determine complaints against railroad and other transportation companies, send for persons

and papers, to administer oaths, take testimony, etc. "-Art. XII., Sec. 22. It seems to me that the power to ample to enable you to discover whether the complaints which have appeared from time to time in our news-papers, and which have had some bearing in shaping the politics of our State, are well founded or not. The Constitution certainly does not intend that you should assume that such grievances exist, nor are you called upon to act, unless formal complaint is made to you. It may be said, and with some reason, that to require shippers in so large a State as ours to come from all parts of it to your office in San Francisco to make complaint is a virtual denial of justice. Therefore, it would seem to be entitely proper that your commission shall, as it may lawfully do, sit at various places in the State at stated times, upon due notice given, to hear and determine any complaint that may be presented. There can be no general action or order of your board in relation to this partieular branch of your jurisdiction, because each case must be determined by the evidence produced to sustain it, and in the light of its own circumstances. In other words, each case involves a trial of questions of fact, and the application of the law as in all other judicial proceedings. I venture to suggest to you, as a result of my own experience in railroad matters, that you will in this way obtain more useful testimony, and arrive at more correct conclusions, and be better enabled to efficiently perform the important duties devolving upon you, than in any other manner. Holding sessions of your board in various parts of the State where transportation is affected by the many and diverse circumstances which necessarily control the charges and operations of railroad companies, you will derive a more perfect knowledge of all these elements than you can possibly obtain by the abstract testimony of any number of experts. WHAT IS DISCRIMINATION ?

As to the discrimination between places, we probably all have a like knowledge. I cannot say that I have knowledge of any special or intended discrimination be-The Constitution of the State of California provides tween places; but there is a discrimination between those places which are termed by carriers competitive points, and those places upon the same line of read which are non-competitive. There is much to be said upon this subject, both for and against the carrier. As against him, it may be said that if the competitive point is situated one hundred miles away from a possible destination, and he can afford to move mercha moved, over that one hundred miles at a given rate, he ought to be willing to make the same movement for fifty miles in the same direction at the same rate he receives for the one hundred. That has been one of the principal points of contention between carriers and shippers, not only in California, but almost every other place or country in which a railroad is operated. It would seem at first glance to be only reasonable that the carrier should not be allowed to charge for the lesser distance any more than he does for the greater; and if that proviston of our, Constitution contained in section 21 of Article XII. which reads: "Persons and property transported over any railroad shall be delivered at any station at charges not exceeding the charges for the transportation of persons and property of the same class in the same direction, to any more distant station," applies to the rates which are charged at competitive points, and compels the carrier to give non-competitive points the benefit of such rates, then, of fcourse, such being the constitutional enactment, we need not pursue the inquiry any further, and it is within your province to give the language I have quoted the proper construction. construction to be given by you shall be that railroad companies, in order to compete at a point on tide or navigable waters with the cheaper mode of transit which such waters afford, offer a rate of charge that will secure the business to the railroad, and that they are therefore prohibited from charging any higher rate at any other point upon their road where there is no competition water, then it will necessarily result that railroads will not be carriers from such competitive points, and the movement of freight to and from such points will be left to the owners of the water craft. In other words, these points will cease to be what are termed competitive points, and the shipper will be deprived of the advantage arising therefrom; and the reason is, that a railroad cannot be operated for the movement of property as elled either by steam or sail. cheaply as vessels prope If railroad companies were compelle I to accept at all

points upon their road only the prices which a barge or schooner coming into competition with them at a par-ticular place compels them to accept, they would, in a ober of cases, do such business at an actual loss. A railroad company accepts the business of a competitive point at the competitive rate rather than not have it at all, because, its trains moving in a certain direction, and having certain fixed charges, it does not sustain any absolute loss by transporting the freight at such lower or competitive rate. It has certain fixed train expenses which have to be met whether the cars are wholly or partially loaded and, therefore, all the goods that it can get into its train within the capacity of are wholly or partially loaded and, therefore, an the goods that it can get into its train within the capacity of the motive power of a single train to carry adds to the general profit, although a porton of it is underpaid. But if the whole of the merchandis on that train were underpaid, the expenses of its movement could not be met. It may seem very onerous to a person located at a non-competitive point to be charged a higher rate than is charged to one whose property is carried a longer distance in the same direction; but as we see, this is not the fault of the carrier. In all parts of the world advantages in the cost of carriage accrue to places situated where there is competition between the inland and the ocean carrier; so that it cannot be said that a higher rate of charge by a railroad company to a person situated midway between two ports than is charged for the whole distance between such ports is an intended discrimination between places. The person thus situated between the two ports is under a physical disadvantage which no railroad company can overcome. The shipport at the competitive point takes the advantage of his position, and compels the carrier by rail to move his goods as cheaply as the water carrier will do it, and as the business at the non-competitive point is not of sufficient volume to load all the cars which can be pulled in one train, the carrier is compelled to accept the less remunerative hisiness rather than pull over a long d'stance cars but partially laden.

COMPETITION IN WATER EOUTES. COMPETITION IN WATER ROUTES,

This may be illustrated by the traffic between San Francisco and Sacramento, also between Stockton and Oakland Wharf, and between Alameda Point and Santa Cruz; but the most forcible and interesting illustration we have before us is the new rente just now offered by the Southern Pacific Railroad for the shipment of grain crop between the Bay of San Francisco and the Port of Liverpool. A shipper at any point on the Bay of San Francisco that can be reached by an ocean vessel takes advantage of his position by compelling the railroad company to take his merchandise at the rate made by the vessel. The railroad must accept the ocean rate between San Francisco and Liverpool, or it will not get the business. For this ocean rate he must move the grain, which is our staple product, nearly 2,500 miles by land, to a port on the Gult of Mexico, and from there by vessel to Liverpool, a distance of nearly 5,000 miles To compete with the average occan rate the railroad must move this grain at about £3 or \$15 a ton, which is a trifle more than the ocean rate; but there is a saving in insurance and interest equivalent to the difference. This, be it understood, is the rate to one having his grain at tide water of sufficient depth to load a vessel of the class plying between the Pacific ports and England; but as the bulk of the grain to be sent abroad is grown at official efforts to abate. If allowed to exist unchecked, some distance from tide water, it must be hauled there before it can have the advantage of the competition between the vessel and the railroad. If, therefore, a train being moved on its way from San Francisco to the Gulf of Mexico stops at a way station to take on the grain grown in the vicinity of that station, it would not be sonable or just to require the railroad to accept at that point the same rate of transportation which the shipper at San Francisco has compelled it to accept because of shed versus The London and Northwestern Railway the water competition at that port. Certainly the onerous terms which you can justly put on the railroad carrier would be to require him to take the grain at the San Francisco rate, adding the usual charge for transportation to San Francisco. This is the practice usual upon all railroads, and it is from this practice that the charge of discrimination against places is made; but in reality there is no such discrimination. The shipper at the competitive point has compelled the carrier to accept from him less than a paying rate; but, as I have heretofore shown, if all the business of the train had to be done at that rate, it would not cover the expenses of